IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A decoder for an automatic speech recognition system for determining one or more candidate text unit concatenations according to a predetermined criterion and which correspond to a speech segment, the decoder comprising:

a processor arranged to receive a sequence of feature vectors corresponding to the speech segment;

the processor arranged to map with different likelihood values the feature vectors to sequences of nodes in a decoding network, every sequence representing a concatenation of text units;

the processor arranged to determine one or more candidate node sequences in the decoding network corresponding to the candidate text unit concatenations by implementing a dynamic programming token passing algorithm in which each token corresponds to a node and is associated with a number of text unit concatenations and likelihood values for these concatenations, and a token associated with a node in the decoding network is derived from the tokens associated with the previous nodes in the network;

tokens from different nodes that are to be passed to a common node are combined to generate a new token corresponding to the common node and associated with an identifier for text unit concatenations and likelihood values associated with the previous tokens of said different nodes; ~~and~~

the processor is further configured to delay a merging of the text unit concatenations until an end of the speech segment based on the likelihood values and output the one or more candidate text unit concatenations corresponding to the speech segment.

Claim 2 (Previously Presented): A decoder according to claim 1 wherein the processor is further arranged to merge said token having said identifier, the text unit concatenations of said previous tokens being associated with said merged token dependent on their corresponding likelihood values.

Claim 3 (Original): A decoder according to claim 2 wherein said merging is only delayed if the token has a likelihood value below a delay-merge threshold.

Claim 4 (Original): A decoder according to claim 1 wherein the processor is further arranged to prune tokens having likelihood values below a prune threshold.

Claim 5 (Original): A decoder according to claim 1 wherein the plurality of candidate text unit concatenations in a token are the text unit concatenations with the N-best likelihood values.

Claim 6 (Previously Presented): A decoder according to claim 1 wherein the tokens are additionally associated with a number of category markers each corresponding to said text unit concatenation, each category marker being associated with one of a plurality of categories, such that the plurality of candidate text unit concatenations in a token are the text unit concatenations with the best likelihood values in said plurality of categories.

Claim 7 (Original): A decoder according to claim 6 wherein the plurality of candidate text unit concatenations are the text unit concatenations with the N-best likelihood values in each said category.

Claim 8 (Original): A decoder according to claim 1 wherein the multiple text unit concatenations associated with each token are used to allow a statistical language model score to be added to the likelihood values associated with said text unit concatenations.

Claim 9 (Original): A decoder according to claim 1 wherein the dynamic programming token passing algorithm is a Viterbi algorithm.

Claim 10 (Original): A decoder according claim 1 wherein the dynamic programming token passing algorithm is a Baum-Welch algorithm.

Claim 11 (Original): A decoder according to claim 1 wherein the tokens and the text unit concatenations are stored in logically separate memories, and wherein a logically separate list data-structure is used to associate tokens with their text unit concatenations or identifiers and corresponding likelihood values.

Claim 12 (Previously Presented): A decoder according to claim 1 wherein the processor is further arranged to map using an acoustic model based on Hidden Markov Models.

Claim 13 (Currently Amended): An automatic speech recognition system comprising a decoder for determining one or more candidate text unit concatenations according to a predetermined criterion and which correspond to a speech segment, the decoder comprising:

a processor arranged to receive a sequence of feature vectors corresponding to the speech segment;

the processor arranged to map with different likelihood values the feature vectors to sequences of nodes in a decoding network, every sequence representing a concatenation of text units;

the processor arranged to determine one or more candidate node sequences in the decoding network corresponding to the candidate text unit concatenations by implementing a dynamic programming token passing algorithm in which each token corresponds to a node and is associated with a number of text unit concatenations and likelihood values for these concatenations, and a token associated with a node in the decoding network is derived from the tokens associated with the previous nodes in the network;

tokens from different nodes that are to be passed to a common node are combined to generate a new token corresponding to the common node and associated with an identifier for text unit concatenations and likelihood values associated with the previous tokens of said different nodes; and

the processor is further configured to delay a merging of the text unit concatenations until an end of the speech segment based on the likelihood values and output the one or more candidate text unit concatenations corresponding to the speech segment.

Claim 14 (Currently Amended): A voice activated control or navigation system for in car use, the system comprising an automatic speech recognition system comprising a decoder for determining one or more candidate text unit concatenations according to a predetermined criterion and which correspond to a speech segment, the decoder comprising:

a processor arranged to receive a sequence of feature vectors corresponding to the speech segment;

the processor arranged to map with different likelihood values the feature vectors to sequences of nodes in a decoding network, every sequence representing a concatenation of text units;

the processor arranged to determine one or more candidate node sequences in the decoding network corresponding to the candidate text unit concatenations by implementing a dynamic programming token passing algorithm in which each token corresponds to a node and is associated with a number of text unit concatenations and likelihood values for these concatenations, and a token associated with a node in the decoding network is derived from the tokens associated with the previous nodes in the network;

tokens from different nodes that are to be passed to a common node are combined to generate a new token corresponding to the common node and associated with an identifier for text unit concatenations and likelihood values associated with the previous tokens of said different nodes; and

the processor is further configured to delay a merging of the text unit concatenations until an end of the speech segment based on the likelihood values and output the one or more candidate text unit concatenations corresponding to the speech segment.

Claim 15 (Currently Amended): A method of decoding for determining a plurality of candidate text unit concatenations according to a predetermined criterion and corresponding to a speech segment in an automatic speech recognition system, the method comprising:

receiving a sequence of feature vectors corresponding to the speech segment;

mapping with different likelihood values the feature vectors to sequences of nodes in a decoding network, every sequence representing a concatenation of text units;

determining one or more candidate node sequences in the decoding network corresponding to the candidate text unit concatenations by implementing a dynamic

programming token passing algorithm in which each token corresponds to a node and is associated with a number of text unit concatenations and likelihood values for these concatenations, and a token associated with a node in the decoding network is derived from the tokens associated with the previous nodes in the network;

combining tokens from different nodes that are to be passed to a common node to generate a new token corresponding to the common node and associated with an identifier for text unit concatenations and likelihood values associated with the previous tokens of said different nodes; ~~and~~

delaying a merging of the text unit concatenations until an end of the speech segment based on the likelihood values; and

outputting the plurality of candidate text unit concatenations corresponding to the speech segment.

Claim 16 (Previously Presented): A method according to claim 15 further comprising merging said token having said identifier, the text unit concatenations of said previous tokens being associated with said merged token dependent on their corresponding likelihood values.

Claim 17 (Original): A method according to claim 16 wherein said merging is only delayed if the token has a likelihood value below a delay-merge threshold.

Claim 18 (Original): A method according to claim 15 further comprising pruning tokens having likelihood values below a prune threshold.

Claim 19 (Original): A method according to claim 15 wherein the plurality of candidate text unit concatenations in a token are the text unit concatenations with the N-best likelihood values.

Claim 20 (Previously Presented): A method according to claim 15 wherein the tokens are additionally associated with a number of category markers each corresponding to said text unit concatenation, each category marker being associated with one of a plurality of categories, such that the plurality of candidate text unit concatenations in a token are the text unit concatenations with the best likelihood values in said plurality of categories.

Claim 21 (Original): A method according to claim 20 wherein the plurality of candidate text unit concatenations are the text unit concatenations with the N-best likelihood values in each said category.

Claim 22 (Original): A method according to claim 15 wherein the multiple text unit concatenations associated with each token are used to allow a statistical language model score to be added to the likelihood values associated with said text unit concatenations.

Claim 23 (Original): A method according to claim 15 wherein the dynamic programming token passing algorithm is a Viterbi algorithm.

Claim 24 (Original): A method according to claim 15 wherein the dynamic programming token passing algorithm is a Baum-Welch algorithm.

Claim 25 (Original): A method according to claim 15 wherein the tokens and the text unit concatenations are stored in logically separate memories, and wherein a logically separate list data-structure is used to associate tokens with their text unit concatenations or identifiers and corresponding likelihood values.

Claim 26 (Currently Amended): A method of automatically recognizing speech comprising a method of decoding for determining a plurality of candidate text unit concatenations according to a predetermined criterion and corresponding to a speech segment in an automatic speech recognition system, the method comprising:

receiving a sequence of feature vectors corresponding to the speech segment;

mapping with different likelihood values the feature vectors to sequences of nodes in a decoding network, every sequence representing a concatenation of text units;

determining one or more candidate node sequences in the decoding network corresponding to the candidate text unit concatenations by implementing a dynamic programming token passing algorithm in which each token corresponds to a node and is associated with a number of text unit concatenations and likelihood values for these concatenations, and a token associated with a node in the decoding network is derived from the tokens associated with the previous nodes in the network;

combining tokens from different nodes that are to be passed to a common node to generate a new token corresponding to the common node and associated with an identifier for text unit concatenations and likelihood values associated with the previous tokens of said different nodes; ~~and~~

delaying a merging of the text unit concatenations until an end of the speech segment based on the likelihood values; and

outputting the plurality of candidate text unit concatenations corresponding to the speech segment.

Claim 27 (Currently Amended): A computer ~~readable~~ storage medium including processor control code, which when executed by a processor performs a method of decoding for determining a plurality of candidate text unit concatenations according to a predetermined criterion and corresponding to a speech segment in an automatic speech recognition system, the method comprising:

receiving a sequence of feature vectors corresponding to the speech segment;

mapping with different likelihood values the feature vectors to sequences of nodes in a decoding network, every sequence representing a concatenation of text units;

determining one or more candidate node sequences in the decoding network corresponding to the candidate text unit concatenations by implementing a dynamic programming token passing algorithm in which each token corresponds to a node and is associated with a number of text unit concatenations and likelihood values for these concatenations, and a token associated with a node in the decoding network is derived from the tokens associated with the previous nodes in the network;

combining tokens from different nodes that are to be passed to a common node to generate a new token corresponding to the common node and associated with an identifier for text unit concatenations and likelihood values associated with the previous tokens of said different nodes; ~~and~~

delaying a merging of the text unit concatenations based on the likelihood values; and

outputting the plurality of candidate text unit concatenations corresponding to the speech segment.